

REMARKS

Claims 1-5, 7-29, and 31-53 remain in this application. No claims have been previously canceled. Claims 6 and 30 are currently canceled. No claims are currently withdrawn.

Claims 13-18 and 37-51 have been withdrawn as the result of an earlier restriction requirement. In view of the examiner's earlier restriction requirement, the applicants retain the right to present claims 13-18 and 37-51 in a divisional application should admitted linking claims 52 and 53 not be allowable.

I. CLAIM REJECTIONS - 35 U.S.C. § 103

A. Examiner's Statements

The examiner rejected claims 1, 4-5, 8-12, 19, 25, 28-29, 32-36, and 52-53 under 35 U.S.C. § 103(a) as being unpatentable over Tulett (U.S. Patent Application Publication No. 2004/0228214 A1) in view of Naville (U.S. Patent No. 6,175,809 B1).

The examiner rejected claims 2-3 and 26-27 under 35 U.S.C. § 103(a) as being unpatentable over Tulett in view of Naville as applied to claims 1 and 19 above, and further in view of Haukjem, et al. (U.S. Patent No. 4,660,184).

The examiner rejected claims 6-7 and 30-31 under 35 U.S.C. § 103(a) as being unpatentable over Tulett in view of Naville as applied to claims 1 and 19 above, and further in view of Detrick.

The examiner rejected claims 20-21 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Tulett in view of Naville as applied to claim 19 above, and further in view of Robbins, et al. (U.S. Patent No. 6,131,694).

The examiner rejected claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Tulett in view of Naville as applied to claim 19 above, and further in view of Bailey (U.S. Patent No. 5,917,160).

The examiner rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Tulett in view of Naville as applied to claim 19 above, and further in view of Norris (U.S. Patent Application Publication No. 2002/0092701 A1).

B. Law

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.¹ If the examiner does not produce a *prima facie* case, the applicants are under no obligation to submit evidence of nonobviousness.

To establish a *prima facie* case of obviousness, the following tenets of patent law must be adhered to: (a) the claimed invention must be considered as a whole; (b) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (c) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (d) reasonable expectation of success is the standard with which obviousness is determined.² Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure.³

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.⁴ Additionally, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.⁵

Also, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.⁶ In addition, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.⁷

C. Claims 1, 4-5, 8-12, 19, 25, 28-29, 32-36, and 52-53

The applicants reviewed claims 1, 4-5, 8-12, 19, 25, 28-29, 32-36, and 52-53 in light of Tulett and Naville and respectfully disagree with the examiner's allegation of obviousness.

¹ *In re Rouffet*, 149 F.3d 1350, 1355, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

² *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5 (Fed. Cir. 1986).

³ *In re Vaecck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991).

⁴ *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); *see also In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

⁵ *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

⁶ *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

⁷ *In re Rattli*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959).

Claims 1, 4-5, 8-12, 19, 25, 28-29, 32-36, and 52-53 are not unpatentable over Tulett in view of Naville because the examiner has not made a *prima facie* case of obviousness. Specifically, there is no motivation to combine the teachings of Naville with the Tulett reference. Alternatively, such a combination does not teach or suggest all of the claim limitations of the claims as amended above.

There is no motivation to combine the Tulett and Naville reference because doing so would render Tulett unsatisfactory for its intended purpose and thus Tulett actually teaches away from a combination with Naville. The examiner alleges that, even though Tulett does not disclose a wireless communication system and also does not disclose that the remote control system is a wireless remote control system in wireless communication with the buoy, it would have been obvious to modify Tulett to include wireless communication systems and control systems as taught by Naville. Tulett, however, specifically teaches away from such a combination by stating that its main objective is to limit error in source signatures introduced by source perturbations. Tulett teaches limiting the error by the use of a specific umbilical (214) supported by a crane (116) connecting the computer processor (120) and the in-sea source controller (218). The umbilical (214) includes an air supply, which is operatively connected to a compressor preferably located on the rig (100). However, the umbilical (214) of the source control system (222) according to FIG. 2 includes only digital communication lines between the in-sea source controller (218) and the processor (120) on the rig (100). Tulett teaches that the use of digital lines eliminates any crosstalk, signal leakage, and the potential for an inadvertent gun firing.⁸ Thus, the digital lines of the umbilical (214) are central to the stated goal of Tulett of increasing the accuracy of seismic data analysis by more accurately providing source signatures. Any other type of communication method that does not provide such a high level of accuracy would not be satisfactory. Tulett teaches away from the modification of Tulett's digital communication umbilical (214) to a wireless communication system such as taught by Naville, which would include additional signal crosstalk and/or signal leakage. Thus, there is no *prima facie* case of obviousness because there is no motivation to modify the teachings of Tulett with the Naville reference.

⁸ Tulett, paragraph [0031].

Alternatively, assuming for the sake of argument that the combination of Tulett and Naville is proper (without conceding such), no *prima facie* case of obviousness has been established as such a combination does not teach or suggest all of the claim limitations. Claims 1, 4-5, 8-12, 19, 25, 28-29, 32-36 recite a placement system including an anchor winch attached to an anchor by an anchor line, the anchor winch being controlled by a wireless remote control system such that the buoy is remotely positionable. Claims 52-53 recite a means for wirelessly remotely controlling a placement system on a buoy to position the buoy. Naville teaches a wireless communication system. However, neither Tulett nor Naville, either alone or in combination, teach a placement system on a buoy that is wirelessly remotely controllable to position the buoy. Instead, Tulett teaches positioning the float (108) using a crane (116) and an umbilical (214) and Naville does not teach a placement system at all. Thus, there is no *prima facie* case of obviousness because Tulett and Naville fail to teach or suggest all the limitations of the claims.

Accordingly, the applicants submit that claims 1, 4-5, 8-12, 19, 25, 28-29, 32-36 are not obvious over the proposed combination of Tulett and Naville and request that the examiner withdraw the rejection.

D. Claims 2-3 and 26-27

Claims 2-3 and 26-27 depend directly from allowable claims 1 and 19. The applicants repeat and hereby incorporate the remarks made above regarding allowable claims 1 and 19. For at least these reasons, the applicants respectfully submit that claims 2-3 and 26-27 are also allowable.

E. Claims 6-7 and 30-31

Claims 6 and 30 are canceled.

With respect to claims 7 and 31, claims 7 and 31 depend directly from allowable claims 1 and 19. The applicants repeat and hereby incorporate the remarks made above regarding allowable claims 1 and 19. For at least these reasons, the applicants respectfully submit that claims 7 and 31 are also allowable.

With respect to the examiner's remarks regarding the Detrick reference, the applicants have reviewed the Detrick reference and respectfully disagree with the examiner's allegation of obviousness. Claims 7 and 31 are not unpatentable over Tulett in view of Naville and Detrick because the examiner has not made a *prima facie* case of obviousness. Specifically,

there is no motivation to combine Naville with Tulett. Alternatively, such a combination does not teach or suggest all of the claim limitations of the claims.

The impropriety of the combination of Tulett and Naville is discussed above.

Alternatively, assuming for the sake of argument that the combination of Tulett and Detrick is proper (without conceding such), no *prima facie* case of obviousness has been established as such a combination does not teach or suggest all of the claim limitations. The examiner admits that Tulett does not disclose that the placement system comprises one or more anchor winches each attached to a corresponding anchor by an anchor line, the anchor winch(es) being controlled by the remote control system. The examiner alleges, however, that Detrick discloses a buoy that includes anchor lines attached to winches and anchors at the bottom of the ocean, citing pages 1, 10, and 28-38 of the Detrick reference. The examiner alleges that it would have been obvious to modify Tulett to include anchoring the seismic buoys to the bottom as taught by Detrick in order to constrain the source to a desired area of survey. The examiner also alleges that it would have been obvious to modify Tulett to include wireless communication systems and control systems as taught by Naville.

Claims 7 and 31 recite a placement system including more than one anchor winch, each winch attached to an anchor by an anchor line, the anchor winches being controlled by a wireless remote control system such that the buoy is remotely positionable. However, although Detrick teaches a buoy moored by an anchor, Detrick does not teach the use of winches with its mooring system. Even if so, Detrick also does not teach winches that are wirelessly remote controlled to position the buoy. Even as the examiner admits, Detrick's mooring system constrains the buoy to a desired area of survey. The use of remotely controlled winches as recited in the claims, however, allow the buoy to be moved to different locations as the winches increase or decrease the length of the anchor line between the buoy and the anchor.

Thus, there is no *prima facie* case of obviousness because Tulett, Naville, and Detrick fail to teach or suggest all of the limitations of the claims. Accordingly, the applicants submit that claims 7 and 31 are not obvious over the proposed combination of Tulett, Naville, and Detrick and request that the examiner withdraw the rejection.

F. Claims 20-21 and 23

Claims 20-21, and 23 depend directly from allowable claim 19. The applicants repeat and hereby incorporate the remarks made above regarding allowable claim 19. For at least these reasons, the applicants respectfully submit that claims 20-21, and 23 are also allowable.

G. Claim 22

Claim 22 depends directly from allowable claim 19. The applicants repeat and hereby incorporate the remarks made above regarding allowable claim 19. For at least these reasons, the applicants respectfully submit that claim 22 is also allowable.

H. Claim 24

Claim 24 depends directly from allowable claim 19. The applicants repeat and hereby incorporate the remarks made above regarding allowable claim 19. For at least these reasons, the applicants respectfully submit that claim 24 is also allowable.

II. STATEMENT REGARDING CLAIMS

The applicants comment on the allowability of the claims by addressing the examiner's comments in this paper as well as previously during the prosecution of this application. By doing so, the applicants are in no way limiting their ability to identify additional points of novelty regarding the independent claims or dependent claims at a later date.

CONCLUSION

The applicants respectfully request reconsideration the non-allowed claims and that a timely Notice of Allowance be issued in this case. If the examiner feels that a telephone conference would expedite the resolution of this case, the examiner is invited to contact the undersigned.

In the course of the foregoing discussions, the applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. There may also be other distinctions between the claims and the prior art that have yet to be raised, but that may be raised in the future.

Unless the applicants have specifically stated that an amendment was made to distinguish the prior art, it was the intent of the amendment to further clarify and better define the claimed invention and the amendment was not for the purpose of patentability. Further, although the applicants may have amended certain claims, the applicants have not abandoned their pursuit of obtaining the allowance of these claims as originally filed and reserve, without prejudice, the right to pursue these claims in a continuing application.

If any fees are inadvertently omitted or if any additional fees are required or have been overpaid, please appropriately charge or credit those fees to Conley Rose, P.C. Deposit Account Number 03-2769 (ref. 1391-43100) of Conley Rose, P.C., Houston, Texas.

Respectfully submitted,
CONLEY ROSE, P.C.



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